

Love: American style, Russian style, and Japanese style

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Abstract

This study was undertaken to examine young women's and men's orientations toward love in three very different cultures: Japan ($N = 223$), Russia ($N = 401$), and the United States ($N = 1,043$). The love variables examined were: frequency of love experiences, attachment types, love styles, love as a basis for marriage, romantic attitudes, and predictors of falling in love. Many cultural differences were found in the love variables, but the effect of culture was not always in the expected direction. We also examined how the pattern of gender differences in love variables differed across the three societies. Some of the gender differences and similarities found in previous love research and also in the U.S. sample of this study were not replicated in the Japanese and/or Russian samples. We discuss the importance of studying love and other aspects of close relationships with data collected from more than one culture.

Love in romantic relationships has become a popular topic of investigation in the past decade (for reviews, see Hatfield & Rapson, 1993; Hendrick & Hendrick, 1992). Most of the love research, however, has been conducted with samples obtained from the United States or other Westernized societies. Furthermore, even comparisons among Western societies or among ethnic groups within a particular Western society have been rare. A scarcity of cross-cultural data is typical of social psychology research in general (Bond, 1988). However,

the scarcity is particularly problematic in the area of romantic love attitudes and experiences, which may well be highly linked with culture (e.g., Rosenblatt, 1966; Swidler, 1980). Gender differences in the area of romantic love would also seem to be strongly linked with culture. Thus, the present research set out to explore responses to a variety of current love measures among samples of young women and men in Japan, Russia, and the United States.

Because there is so little cross-cultural theory and research on love, we were reluctant to develop firm and specific hypotheses concerning what cross-cultural differences and similarities might be found. Indeed, we want to emphasize the exploratory nature of these comparisons. Nevertheless, there is some basis for expecting culture to play a role in love and for cultural differences to yield different love experiences. Though culture is a "fuzzy concept" (Triandis, Bontempo, & Villareal, 1988), cultures can be differentiated along mean-

An earlier version of this article was presented at the Sixth International Conference on Personal Relationships, Orono, ME, July 1992. The authors wish to thank Kathleen McKinney, Tim Martin, and Ken-ichi Ohbuchi for assistance in the data collection and Mark Kaiser, Natayla Kudachkina, and Gary Cox for advice on the Russian translation.

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ingful dimensions. One such dimension that has proven fruitful in recent work is collectivism versus individualism. Dion and Dion (1988, 1993) analyzed how this dimension might be related to romantic love. Collectivist cultures (e.g., many Asian cultures) emphasize "reduced privacy, emotional dependence on organizations and institutions, a belief in the superiority of group over individual decisions, and one's identity being defined by one's place in the social system" (Dion & Dion, 1988, p. 280). The group may be family, an ethnic group, a religion, or an organization (Triandis et al., 1988). Individualistic societies (e.g., Western cultures), on the other hand, emphasize "rights over duties, personal autonomy, self-realization, individual initiative and achievement, and the superiority of individual decisions" (Dion & Dion, 1988, p. 280). Just what effect these differences might have on romantic love is not entirely clear. Some analysts (e.g., Waterman, 1981, 1984) suggest that individualism is beneficial for love and interdependence. Others (e.g., Bellah, Madsen, Sullivan, Swidler, & Tipton, 1985) suggest that individualism and love are not necessarily compatible, and, in fact, America's individualistic culture may make it difficult for individuals to be loving toward others. In the present study, Japan represents a traditionally collectivist culture and the United States, a prototypically individualist culture. Russia, with its central European heritage and its literally collectivist experience of the last 70 years, would seem to be in between.

Two further cultural dimensions possibly relevant to love are ideology of love and economic wealth. European-based cultures (including Russia and the United States, but not Japan) share a love ideology that includes a heritage of courtly romantic love (Fiedler & Rehtien, 1988). The European heritage of romantic love may be especially strong in Russia, where there is not only a strong romantic literary and artistic tradition, but also an official ideology—if not always official practice—that has emphasized the importance of love following

Marx and Engels' very romantic views on the subject (Shlapentokh, 1984). Economic wealth also seems relevant to love (Levine, Sato, Hashimoto, & Verma, in press). In a poor or struggling society (e.g., Russia during the time this research was conducted), there may be a more practical approach toward love, whereas more affluent societies (Japan and the United States in the present research) may be better able to afford the luxury of romance.

Finally, culture may be related to gender differences in love. Gender differences reported in previous literature (mainly U.S. studies) have been explained by models emphasizing biology (genetic, hormonal, and physical factors), early socialization and attachment experiences, and social roles. The latter two approaches in particular have indicated a diversity in gender patterns across societies as a function of differing social structure and in how men and women are treated, both as children (when early attachments are formed) and in adulthood. In the present study, Japan would seem to reflect a considerably more traditional gender differentiation than either Russia or the United States (Fukuda, 1991; Fukutake, 1981).

Thus, the samples selected provided an opportunity to draw sharp contrasts on key dimensions of collectivism–individualism, love ideology, economic wealth, and traditionalism of gender roles. At the same time, the three countries all share a status as world powers and comprise educated, and at least reasonably economically well-off, populations. Furthermore, Russia and Japan are relatively unexplored territory in the context of love research (with only a few studies in Japan and none in Russia using conventional measures).

The variables we measured in these three cultures were selected to represent current measurement approaches to love, focusing on variables that might be particularly sensitive to cultural differences (e.g., we mainly included measures that emphasize love in general, rather than in a specific relationship) and which have been theoretically interesting in their application in

North American studies. Below we briefly consider each of these variables and note previous gender-related or cross-cultural findings that are relevant to the present study.

Love Variables Examined

Frequency of love experiences. Two common questions asked in recent studies on love have been, "Are you in love now?" and "How many times have you been in love?" For example, in a sample of University of Miami students, Hendrick, Hendrick, Foote, and Slapion-Foote (1984) found that 46% of the respondents said they were currently in love; only 11% said that they had never been in love. Other evidence also shows that most young adults in the United States and Canada have experienced love at least once (Averill & Boothroyd, 1977; Dietch, 1978; Dion & Dion, 1973; Hendrick & Hendrick, 1986; for a review, see Aron, Aron, Paris, Tucker, & Rodriguez, 1989). Hendrick and Hendrick (1986; Hendrick et al., 1984) also reported gender differences. In their studies, a greater proportion of women than of men reported that they were in love (61% vs. 43% in one study; 64% vs. 46% in another). Hendrick et al. (1984) reported no gender differences in the number of times in love. In their 1986 study, however, they found that men, more frequently than women, either had never been in love or had been in love three or more times. Romantic love has often been identified as a Western phenomenon (deRougemont, 1983), but other scholars have argued that romantic love is universal (e.g., Hatfield & Rapson, 1987). However, we were not able to locate any data comparing incidence and frequency of falling in love involving a non-Western culture.

Attachment types. The prominent attachment perspective on love was proposed by Hazan and Shaver (1987), who extended to romantic love in adulthood the theory and research of Bowlby (1969) and Ainsworth,

Blehar, Waters, and Wall (1978) that was conducted on attachment types in infants. According to Hazan and Shaver, early-care-taker-child relationships affect the attachment styles manifested in adulthood. The three attachment types are "secure," "avoidant," and "anxious-ambivalent." In their original study (conducted in the United States), 55% of adults had a secure attachment style, 25% were avoidant, and 20% were anxious-ambivalent. This distribution has been replicated fairly consistently across many studies conducted (primarily in the United States) since 1987 and has been quite consistent across genders (Brennan, Shaver, & Tobey, 1991; Collins & Read, 1990; Feeney & Noller, 1990; Hazan & Shaver, 1987; Levy & Davis, 1988; for a review, see Shaver & Hazan, 1993). Although no previous research has directly examined whether cultural differences exist in the distribution across attachment types, Feeney and Noller (1990) in Australia and Mikulincer, Florian, and Tolmacz (1990) in Israel found distributions similar to those found in the U.S. studies. However, children's patterns of attachment have been examined across various cultures and have been found to differ. For example, in a meta-analysis study conducted with data from 32 samples in eight different cultures, van Ijzendoorn and Kroonenberg (1988) found that more children were classified as anxious-ambivalent in Japan and Israel than in the United States or West European countries.

Love styles. Another prominent love taxonomy, originally proposed by Lee (1973) and more recently operationalized by Hendrick and Hendrick (1986, 1990), describes six love attitudes or styles: Eros (romantic, passionate love), Ludus (game-playing love), Storge (friendship love),Pragma (logical, shopping-list love), Mania (possessive, dependent love), and Agape (selfless love). Previous research by Hendrick and Hendrick and others focused on examining how the love styles are related to such individual difference variables as gender and self-esteem (Hendrick & Hendrick, 1986;

Woll, 1989) and to other relationship attitudes and experiences (Hendrick & Hendrick, 1988, 1989; Levy & Davis, 1988). Across several studies (all conducted in North America), the most consistent gender difference found is that men score higher than women on Ludus (e.g., Hall, Hendrick, & Hendrick, 1991; Hendrick & Hendrick, 1986; Hendrick et al., 1984). Furthermore, in several studies, women have been found to score higher than men on Storge, Pragma and Mania. Less consistent results have been found concerning the effect of gender on Eros and Agape. The only cross-cultural study we have located on love styles (Murstein, Merighi, & Vyse, 1991) found that U.S. students, compared to French students, had higher levels of Storge and Mania and lower levels of Agape, but did not significantly differ on the other love styles. In their total sample (French and American samples combined), men scored higher than women on both Ludus and Agape; the only within-country significant gender difference was that French men were higher than French women on Ludus. Comparing ethnic groups within the United States, Hendrick and Hendrick (1986) found that Asian students (making up 7.7% of their total sample), compared to students from other ethnic backgrounds, scored lower on Eros and higher on Storge and Pragma. (These data suggested that we might find parallel results for our Japanese sample compared to the U.S. and Russian samples.) Hendrick and Hendrick, however, did not report whether there were interactions of ethnic group and gender. (See also Contreras, Hendrick, and Hendrick, 1993, for research comparing Hispanic and Anglo adults on love styles.)

Love as a basis for marriage. In the United States, it seems to be generally assumed that two people will marry each other only if there is love between them (e.g., Burgess & Wallin, 1953). In the 1960s, Kephart (1967) asked more than a thousand U.S. college students the following question: "If a boy (girl) had all the other qualities you

desired, would you marry this person if you were not in love with him (her)?" Kephart found that 65% of the males but only 24% of the females said no ("no" means they would only marry someone they love). More recently, Simpson, Campbell, and Berscheid (1986), in both 1976 and 1984, and Allgeier and Wiederman (1991) found that over 80% of both female and male college students responded no to this question. Levine et al. (in press) administered the Kephart question to students in 11 different countries (including Japan, but not Russia) and found a similar high percentage (86%) for U.S. students (with lower percentages for all other countries). The percentage for Japan was 62%. Levine et al. also reported substantial correlations across countries between the average response to this item and an index of a country's individualism/collectivism ($r = .56$) and economic strength ($r = .75$). Individuals from individualistic countries were more likely to rate love as a basis of marriage than were individuals from collectivistic countries, and individuals from countries with greater economic wealth were more likely to rate love as a basis of marriage than were individuals from less wealthy countries. However, they did not find significant gender differences on love as a basis for marriage, either overall or in any of the 11 countries. Regarding Russia, Shlapentokh (1984) noted that love as the basis of marriage has been official Soviet (Russian) ideology from the earliest days of the Russian Revolution, and survey data (from the 1970s) suggest that people's values are consistent with this official ideology. The surveys suggest that about 90% of young people view love as a very central value, with Russian women seeing it as more central than Russian men. (On the other hand, Russian newlyweds rank love below such motivations as mutual respect and fidelity as a motivation to marry.)

Romantic attitudes. The belief that love should be a basis for marriage can be considered one component of a larger constel-

lation of beliefs that can be called the romantic ideology. Other beliefs associated with the ideology of romanticism include love at first sight, there is only one true love, true love lasts forever, idealization of the partner and the relationship, and love can overcome any obstacles (Cunningham & Antill, 1981; Knox & Sporakowski, 1968; Lantz, Keyes, & Schultz, 1975; Sprecher & Metts, 1989). In most studies on romantic attitudes, conducted primarily in the United States, men have been found to be more romantic than women (e.g., Fengler, 1974; Heiger & Troll, 1973; Hobart, 1958; Kephart, 1967; Knox & Sporakowski, 1968; Sprecher & Metts, 1989). A study conducted with a sample of adults in Australia, however, found no gender differences in romanticism (Cunningham & Antill, 1981). In one cross-cultural study, Simmons, Vomkolke, and Shimizu (1986) administered the Hobart (1958) and Knox and Sporakowski (1968) romanticism scales to university students in Japan, West Germany, and the United States. On some of the subscales, Japanese students scored as least romantic and West German students scored as most romantic. On other subscales, no differences were found across the societies. As noted above, surveys in the Soviet Union (Russia) suggest that love is among the most central values of young people.

Predictors of falling in love. In three studies of retrospective accounts of falling in love conducted in the United States and Canada, Aron, Dutton, Aron, and Iverson (1989) found that the other's desirable characteristics (e.g., physical attractiveness, personality) and being liked by the other were extremely likely to be mentioned as preceding falling in love; readiness to develop a relationship, arousal/unusualness of the situation, and similarity appeared moderately frequently. Unpublished data from these studies suggest that physical attractiveness is more important for men—a result similar to that found in the United States by Feingold (1990) and by Buss (1989) cross-culturally. Also, Feingold's

(1991) data suggest that similarity may be more important to women than to men.

In sum, this study explores love attitudes and experiences in three societies—Japan, Russia, and the United States—representing diverse poles on collectivism/individualism, love ideology, economic strength, and traditional gender roles; it employs a variety of relevant, current, and widely used love measures that have previously received little cross-cultural attention.

Method

Sample

The data for this report come from a larger survey study conducted with college students recruited from universities in Japan, Russia, and the United States between 1991 and 1992. After eliminating subjects for whom no information was available on gender, we had a total sample size of 1,667 respondents. Of these 1,667 respondents, 695 were males and 972 were females.

The 223 participants in the Japanese sample were from Nanzan University in Nagoya ($n = 108$) and Tohoku University in Sendai ($n = 115$). The Russian sample consisted of 401 participants from Vladimir Poly-Technical Institute, which is about 120 miles east of Moscow. The U.S. sample consisted of 1,043 participants from five different universities or colleges: Illinois State University ($n = 478$), Southern Methodist University in Dallas, Texas ($n = 326$), the University of Hawaii in Honolulu ($n = 104$), Bradley University in Peoria, Illinois ($n = 79$), and Millikin College in Decatur, Illinois ($n = 56$). Table 1 presents background information on the samples from the three countries.

In all three countries, questionnaires were distributed as part of a regular class session in a general social science or psychology course, and nearly all those present completed the questionnaire. Thus, the samples are probably reasonably representative of college students who take such courses at each of these universities. And the universi-

Table 1. Background information on the Japanese, Russian, and U.S. samples

	Japan (N = 223) (%)	Russia (N = 401) (%)	United States (N = 1,043)(%)
Gender	53% females	50% females	63% females
Age	84% aged 18-21 Median = 20	60% aged 18-21 Median = 21	75% aged 18-21 Median = 20
Race/Ethnic background ^a	94% Asian 6% other	94% White 6% other	77% White 9% Asian 9% Black 5% other
Setting grew up in			
Rural	7	14	8
Small town	20	12	18
Large town or small city	35	44	20
Suburb	20	3	39
Large city	18	28	14
Family's social class ^b			
Upper	1	3	7
Upper middle	23	12	37
Middle	56	49	44
Lower middle	15	11	8
Working	5	24	4
Lower	1	1	1
Romantic relationship status			
Not involved	54	34	31
Casual dating	18	19	16
Serious dating	23	18	36
Engaged or living together	6	7	7
Married	.4	18	7
Other	1	4	2

^aWe have more confidence in the validity of the ethnic/race question for the U.S. sample than for the Russian or Japanese samples. For example, the 6% of the subjects from Japan who chose a category other than "Asian" were probably Asian (Japanese), as reported by the two individuals who distributed the questionnaire in their classes. Furthermore, an expert on the Russian language from the United States reported that the question on ethnicity was inappropriate for the Russians. Although we did not ask about whether subjects were native-born, we believe that either 100% or nearly 100% of the subjects in each country were native-born, as indicated by those who distributed the questionnaires.

^bOne of the experts on the Russian language from the United States noted that the Russians would probably be confused by the question that asks about social class and would not be able to identify which social class they belong to. Thus, it may not be meaningful to compare this item across cultures.

ties, in turn, would seem to be reasonably representative of the mainstream of college students in their countries.

Procedure

The questionnaire was self-administered, with responses placed on an op-scan sheet. At Nanzan University in Japan and in Russia and the United States, the questionnaire was completed during regularly scheduled class periods. At Tohoku University in Ja-

pan, subjects completed the questionnaire at home. In all cases, students were reassured that the questionnaire was voluntary and anonymous.

The questionnaire remained in English for the Japanese sample. This procedure was followed because the Japanese students who were contacted had excellent command of the English language. For example, many of the Japanese subjects were English-language or American Studies majors and thus had many years of formal instruc-

tion on the English language. Japanese subjects were also allowed to use Japanese-English dictionaries if necessary. Professors who distributed the questionnaire in their classes reported that the subjects did not seem to have any problems completing and understanding the questionnaire.

For the Russian sample, the questionnaire was translated into Russian. Although there was no opportunity to have the Russian version of the questionnaire back-translated into English and compared to the original draft before data were collected in Russia, this comparison was made later to check the accuracy of the translation. The questionnaire was initially back-translated by a professor from the Foreign Languages department at Vladimir Poly-Technical Institute. Later, a professor of Russian languages from a university in the United States also back-translated the Russian questionnaire into English and assessed the accuracy of the original translation. Furthermore, an independent assessment was made by a second professor of Russian languages from another American university. Both experts concluded that the original translation was good. Only a few problems in the lengthy questionnaire were noted, and those relevant to this report will be discussed in the Measurement section that follows.

Measurement

The 15-page questionnaire completed by the participants contained several scales and measures referring to feelings and experiences with love. (Other aspects of the survey focus on the subjects' sexual attitudes and behaviors, which are the focus of other papers being written from the data.) The measures used for this study are described below.

Frequency of love experiences. We asked the two love-experience questions that have been asked in previous research on love (e.g., Hendrick & Hendrick, 1989). These are: "Are you currently in love with someone?" (yes; no); and "How many different

people have you been in love with (not counting childhood crushes)?" (Options ranged from "0" to "eight or more.")

Attachment types. Attachment type—secure, avoidant, or anxious-ambivalent—was assessed by Hazan and Shaver's (1987) forced-choice, single-item measure, in which subjects select from three short descriptions the one that best describes their feelings.

Love styles. Each of Lee's (1973) six love styles was measured by three items from the corresponding subscale of Hendrick and Hendrick's (1986) Love Attitudes Scale. (Although it would have been desirable to include all 42 items from the Hendrick and Hendrick scale, our decision to measure many variables in the questionnaire prohibited using their entire scale.) The three items selected for each style were those reported by Hendrick and Hendrick (1986) to have the highest factor loadings for the corresponding factor. The subjects responded to each of the 18 items on a (1) *strongly disagree* to (5) *strongly agree* response scale.

The expert from the United States who back-translated the Russian questionnaire identified a problem with the original translation of one item from the Agape scale. Thus, we deleted this item from the cross-cultural analyses. For the total sample, the alpha coefficients for these short forms of the love styles scales were .66 for Eros; .58 for Ludus; .59 for Storge; .42 for Pragma; .53 for Mania; and .57 for Agape (2 items).¹

1. Coefficient alphas for the love style scales for the three countries were:

	Japan	Russia	U.S.
Eros	.56	.61	.66
Ludus	.26	.50	.60
Storge	.57	.55	.60
Pragma	.37	.43	.55
Mania	.38	.45	.62
Agape (2 items)	.58	.48	.59
Agape (3 items)	.57	N.A.	.70

Although there were a few low reliabilities, these are to be expected with 3-item scales.

Love as a basis for marriage. Kephart's (1967) question, "If a person had all the other qualities you desired, would you marry him/her if you were not in love?" was included in the questionnaire. Two possible responses were presented: yes or no. (Kephart and other researchers using this scale have also included an "undecided" option. However, we thought that the inclusion of this option would unnecessarily complicate the cross-cultural comparison.)

Romantic attitudes. The Sprecher and Metts (1989) Romantic Beliefs Scale was included as a measure of romantic attitudes or beliefs. This scale contains 15 items that measure a variety of romantic beliefs: love finds a way (e.g., "If I love someone, I know I can make the relationship work, despite any obstacles");² one and only (e.g., "There will be only one real love for me"); idealization (e.g., "I'm sure that every new thing I learn about the person I choose for a long-term commitment will please me"); and love at first sight (e.g., "When I find my 'true love' I will probably know it soon after we meet"). Participants responded to each of the 15 items on a (1) *strongly disagree* to (7) *strongly agree* response scale. In our analysis, we consider only the total score (mean) of the 15 items. The coefficient alpha was .79 for the total sample, .78 for the Japanese

sample, .77 for the Russian sample, and .82 for the U.S. sample.

Predictors of falling in love. Based on work by Aron et al. (1989) on the experience of falling in love, questions were written that assessed the importance of various factors as antecedents of love. Participants were asked to think about their most recent experience of "falling in love" or developing an infatuation and to remember the circumstances surrounding the experience. Those who had never experienced love or infatuation were directed to answer the questions for how they imagine it would happen. Each question was stated in the following format, "How much of an impact did _____ have on your first feelings of strong attraction?" Participants responded to each item on a 7-point response scale: 1 = negative impact, 2 = no impact, 3 = slightly positive impact, 4 = somewhat positive impact, 5 = very positive impact, 6 = extremely positive impact, 7 = not relevant—had no information about this factor. (Later, we recoded the not relevant option to 2 = no impact.)

The eleven factors were: (a) physical attractiveness, (b) similarity to you (in attitudes, experiences, background, etc.), (c) family's and/or friends' approval, (d) familiarity (having spent a lot of time together), (e) personality, (f) social standing (career success or potential career success, social status, family standing), (g) other's liking and affection for you, (h) something very specific (his/her eyes, voice, similarity to a person who has been important to you), (i) your readiness to enter a relationship, (j) isolation the two of you had from others, and (k) some "mystery" about the other person. Aron et al. included two additional predictors: filling needs and arousal/unusualness of the situation. However, these concepts were found to be difficult to understand when operationalized in this format by a small group of American students who pretested the items and/or by the Russian sociologist who had to translate the ques-

2. The expert from the United States who back-translated the Russian questionnaire identified a problem with one of the items designed to measure the belief, love finds a way. The original item was "If a relationship I have was meant to be, any obstacle (e.g., lack of money, physical distance, career conflicts) can be overcome," whereas the back-translated version of the Russian translation of this item was "If the relationship which I entered into was well intended, any obstacle (for example, absence of money, physical incompatibility, conflicts over career advancement) can be overcome." Thus, "meant to be" was translated to be "well intended." However, because the emphasis of this item is on overcoming obstacles, we believe that the basic meaning was retained for the Russians, and thus we decided not to eliminate this item from the analysis.

tionnaire. Furthermore, we departed from the Aron et al. (1989) list by having three items measure desirable characteristics of the other: personality, physical attractiveness, and social standing.

Results

Overview

For each of the love variables, we conducted analyses to address three questions: (1) Are there cross-cultural differences?³ (2) Are there gender differences? and (3) Are the gender differences and similarities consistent across the cultures? To answer these questions, an ANOVA was conducted for the interval variables, and chi-square analysis was conducted for the categorical variables. We conducted the regression version of ANOVA, which makes it possible to examine the effect of culture while controlling for gender (and vice versa). For analyses involving the full sample, we set the significance level to $p \leq .01$. Table 2 presents the data on cultural differences and similarities, and Table 3 presents the data on gender differences and similarities within each culture (results related to gender differences for the total sample are presented below). Table 4 summarizes the effects from the ANOVAs and chi-squares.

Love experiences

Significantly more Russian subjects were currently in love than were U.S. subjects or Japanese subjects. Because current love status is likely to be affected by marital status (and more Russians were married), we ran the analysis a second time with the

married respondents eliminated. Similar cultural differences were found, but the differences did not reach significance ($p = .06$). In the total cross-national sample, there was also a significant gender difference in current love status. A greater proportion of women (65%) than men (53%) said they were currently in love. This greater proportion of women than men currently in love was also found within each of the three countries (see the percentages in the first row of Table 3).

We analyzed in two ways the item asking subjects how many times they had been in love. First, we compared the three cultures on the mean response on the 9-category response scale (which ranged from 0 to 8 or more). A cross-cultural difference was found for the mean response. The Japanese sample reported a higher mean number of times in love than did both the U.S. sample and the Russian sample. Further exploration with the data indicated that Japan's higher mean score to this item was due to a higher proportion of subjects (39%) who had been in love three or more times (it was 21% in the United States and 18% in Russia). Therefore, as a second way of analyzing this item, we compared the proportion who chose none versus all other categories across the three cultures. The Japanese sample had a greater proportion of subjects who had never been in love (22% compared to 13% for Russia and 11% for the United States). This cross-cultural difference was significant ($\chi^2 = 19.59; p < .001$).⁴

Men and women did not significantly differ in the mean number of times in love. There was a trend ($\chi^2 = 4.24; p < .05$), however, for a greater proportion of men (15%) than of women (11%) to report never having been in love. The gender-by-culture interaction was not significant for this item

3. The examination of subcultural differences (within each country) is beyond the scope of this article, although exploratory analyses indicate that the three subsamples in the United States (which varied on a number of factors, including geographical location, gender ratio, ethnicity, and religious background) differed on some of the love attitudes and experiences.

4. The high proportion of never-been-in-love subjects in Japan cannot be accounted for completely by their younger age relative to other samples. When this analysis was conducted again including only subjects age 21 or younger, a similar cross-cultural difference was found.

Table 2. Scores on the love variables for the Japanese, Russian, and U.S. samples

	Japanese Sample	Russian Sample	U.S. Sample
Love experiences			
In love now	53% _a	67% _b	59% _a *
No. of times ever in love	2.19 _a	1.69 _b	1.81 _b *
% never have been in love	22% _a	13% _b	11% _b *
Attachment type			
Secure	37% _a	35% _a	49% _b *
Avoidant	46%	47%	37%
Anxious-Ambivalent	18%	15%	14%
Lovestyles			
Eros	3.23 _c	3.66 _b	3.91 _a *
Ludus	2.20 _c	2.89 _b	2.17 _a *
Storge	3.11 _b	3.04 _b	3.47 _a *
Pragma	2.48	2.41	2.44
Mania	3.21	3.29 _b	3.07 _a *
Agape (2 items)	2.83 _c	3.41 _b	3.20 _a *
Agape (3 items)	2.95	N.A.	3.06
Romantic attitudes			
Love should be basis of marriage	81% _a	64% _b	89% _c *
Romantic beliefs	4.03 _b	4.34 _a	4.26 _a *
Predictors of love			
Personality	4.52 _c (1)	4.03 _b (2)	5.07 _a (1)*
Reciprocal liking	4.20 _b (2)	4.16 _b (1)	4.69 _a (2)*
Physical appearance	4.00 _b (3)	3.99 _b (3)	4.66 _a (3)*
Familiarity	3.77 (4)	3.95 (4)	4.03 (6)*
Something specific	3.64 _b (5)	3.87 _b (5)	4.20 _a (4)*
Similarity	3.48 _c (6)	3.14 _b (9)	4.06 _a (5)*
Readiness	3.38 (7)	3.62 (7)	3.64 (9)*
Isolation	3.10 _b (8)	3.74 _a (6)	3.83 _a (7)*
Mystery	3.09 _b (9)	3.44 _b (8)	3.69 _a (8)*
Social standing	3.04 (10)	2.77 _b (11)	3.15 _a (11)*
Family and friend approval _{...}	2.98 _b (11)	3.00 _b (10)	3.29 _a (10)*

Note: *There was a significant ($p \leq .01$) cross-cultural difference in response to these love variables. See Table 4 for the exact F s and chi-squares. The subscripts show which cultures have significantly different ($p \leq .01$) scores within a row, based on post-hoc Scheffe tests (for interval-level variables) or chi-square tests comparing two countries at a time (for categorical variables). The numbers in parentheses next to means for predictors of love represent the rank order (based on mean scores) within the particular culture.

that asked about the number of times in love.

Attachment types

As shown in Table 2, a greater proportion of the U.S. sample than the other two samples had a secure attachment type. On the other hand, a greater proportion of the subjects were avoidants in the Russian and Japanese samples than in the U.S. sample. Cultural differences in response to the attachment item were significant.

A gender difference was also found in attachment types. In the total cross-national sample, 41% of men and 46% of women were secure, 39% of men and 42% of women were avoidant, and 20% of men and 12% of women were anxious-ambivalent. Thus, men were more likely than women to be anxious-ambivalent, and women were slightly more likely than men to be either secure or avoidant. Further analyses conducted within each country indicated that the gender differences in attachment types were found in Japan ($\chi^2 = 16.51, p < .001$)

Table 3. Scores on the love variables for men vs. women in the three cultures

	Japanese Sample		Russian Sample		U.S. Sample	
	M	F	M	F	M	F
Love experiences						
In love now	41%	63%*	61%	73%*	53%	63%*
No. of times ever in love	2.06	2.31	1.82	1.56	1.91	1.75
% never have been in love	30%	14%*	12%	14%	13%	10%
Attachment types						
Secure	25%	49%*	39%	31%*	47%	50%
Avoidant	53%	43%	36%	57%	37%	38%
Anxious- ambivalent	23%	9%	25%	12%	16%	12%
Lovestyles						
Eros	3.16	3.29	3.73	3.59	3.82	3.96
Ludus	2.17	2.23	2.92	2.87	2.40	2.04*
Storge	3.07	3.16	3.03	3.05	3.30	3.57*
Pragma	2.37	2.58	2.48	2.34	2.35	2.50*
Mania	3.36	3.08*	3.15	3.44*	2.92	3.15*
Agape (2 items)	3.08	2.62*	3.59	3.23*	3.28	3.15
Agape (3 items)	3.17	2.76*	N.A.	N.A.	3.17	3.00
Romantic attitudes						
Love should be a basis of marriage	80%	81%	70%	59%	87%	91%
Romantic beliefs	4.09	3.98	4.23	4.45	4.23	4.28
Predictors of love						
Personality	4.23 (1)	4.78 (1)*	3.97 (2)	4.09 (2)	4.83 (2)	5.21 (1)*
Reciprocal liking	4.08 (3)	4.32 (2)	3.96 (4)	4.37 (1)*	4.55 (3)	4.77 (2)*
Physical appearance	4.17 (2)	3.84 (3)	4.39 (1)	3.59 (6)*	4.91 (1)	4.51 (3)*
Familiarity	3.80 (4)	3.74 (4)	3.87 (6)	4.03 (3)	3.85 (6)	4.14 (5)*
Something specific	3.75 (5)	3.53 (5)	3.97 (3)	3.77 (5)	4.06 (4)	4.28 (4)
Similarity	3.57 (6)	3.41 (6)	3.20 (9)	3.09 (9)	4.05 (5)	4.06 (6)
Readiness	3.43 (7)	3.33 (7)	3.92 (5)	3.31 (7)*	3.62 (8)	3.65 (9)
Isolation	3.16 (9)	3.05 (9)	3.65 (7)	3.83 (4)	3.75 (7)	3.87 (7)
Mystery	3.22 (8)	2.97(10)	3.62 (8)	3.26 (8)*	3.50 (9)	3.80 (8)*
Social standing	2.77(11)	3.28 (8)*	2.69(11)	2.84(11)	2.97(11)	3.26(11)*
Family and friend approval	3.10(10)	2.88(11)	2.93(10)	3.07(10)	3.08(10)	3.41(10)*

Note: *There was a significant ($p \leq .01$) gender difference within the specific country for these love variables. The numbers in parentheses next to means for predictors of love represent the rank order (based on mean scores) within the particular column.

and in Russia ($\chi^2 = 19.44, p < .001$), but not in the United States ($\chi^2 = 3.30, n.s.$). (See the percentages in Table 3.)

Love styles

The ANOVA results indicated significant cultural differences in responses to five of the six love styles: Eros, Ludus, Storge, Ma-

nia, and Agape. As shown in Table 2, the mean score for Eros was significantly higher for the U.S. sample than for the Japanese and the Russian samples, and, furthermore, the Russian sample had a higher Eros score than the Japanese sample. The U.S. sample also had a significantly higher score on Storge than did the Russian and the Japanese samples. On the other hand, the Rus-

Table 4. Effects of gender and culture on love variables: Results from ANOVAs and chi-squares

	Effect of Culture	Effect of Gender	Gender-By-Culture Interaction (applicable only from ANOVA)
Love experiences			
In love now	$\chi^2 = 13.19^{**}$	$\chi^2 = 22.83^{**}$	N.A.
No. of times ever in love	$F = 8.37^{**}$	$F = .38$	$F = 2.37$
% never have been in love	$\chi^2 = 19.59^{**}$	$\chi^2 = 4.24$	N.A.
Attachment types	$\chi^2 = 25.36^{**}$	$\chi^2 = 19.37^{**}$	N.A.
Lovestyles			
Eros	$F = 59.89^{**}$	$F = .75$	$F = 3.92$
Ludus	$F = 67.36^{**}$	$F = 4.01$	$F = 5.94^*$
Storge	$F = 28.02^{**}$	$F = 4.78$	$F = 2.71$
Pragma	$F = .37$	$F = 2.09$	$F = 4.99^*$
Mania	$F = 13.13^{**}$	$F = 2.46$	$F = 8.34^{**}$
Agape (2 items)	$F = 7.50^{**}$	$F = 25.74^{**}$	$F = 1.74$
Romantic attitudes			
Love should be a basis of marriage	$\chi^2 = 122.34^{**}$	$\chi^2 = .68$	N.A.
Romantic attitudes	$F = 8.03^{**}$	$F = .89$	$F = 2.24$
Predictors of love			
Personality	$F = 108.63^{**}$	$F = 25.89^{**}$	$F = 2.96$
Reciprocal liking	$F = 28.72^{**}$	$F = 14.95^{**}$	$F = .83$
Physical appearance	$F = 66.89^{**}$	$F = 51.01^{**}$	$F = 4.42^*$
Familiarity	$F = 2.33$	$F = 2.42$	$F = 1.53$
Something specific	$F = 16.08^{**}$	$F = .67$	$F = 4.22$
Similarity	$F = 73.32^{**}$	$F = 1.18$	$F = .54$
Readiness	$F = 2.72$	$F = 6.61^*$	$F = 6.74^{**}$
Isolation	$F = 22.31^{**}$	$F = .51$	$F = .76$
Mystery	$F = 15.65^{**}$	$F = 1.57$	$F = 9.64^{**}$
Social standing	$F = 10.31^{**}$	$F = 16.97^{**}$	$F = 1.42$
Family and friend approval	$F = 6.68^{**}$	$F = 1.06$	$F = 3.94$

Note: * $p \leq .01$; ** $p < .001$.

sian sample scored significantly higher on Ludus than the U.S. and the Japanese samples, and the Russian sample scored significantly higher on Mania than the U.S. sample. Because the subjects from the different countries may use response scales in different ways, we also examined which love styles were most highly endorsed within each country. The three samples were similar in that all three samples scored highest on Eros. The love style that was the second most likely to be endorsed was Storge for the U.S. sample, Agape for the Russian sample, and Mania for the Japanese sample.

In the total cross-national sample, only one gender difference was found in love styles. Men scored significantly higher on Agape than did women ($M_s = 3.34$ and 3.10). (Note that these analyses were based on the 2-item scale.) The gender-by-culture interaction was significant for three other love styles—Ludus, Pragma, and Mania—which means that gender differences or similarities found on these love styles were not consistent across the three cultures. In the U.S. sample, men were more ludic than women ($t = 5.31$, $p < .001$); however, no gender difference was found on Ludus in

Russia ($t = .47, n.s.$) or in Japan ($t = -.59, n.s.$). In the U.S. sample, women were more pragmatic than men ($t = -2.84, p < .01$); however, no gender difference was found on Pragma in Russia ($t = 1.61, n.s.$) or in Japan ($t = -2.23, n.s.$). In the U.S. sample, women were more manic than men ($t = -3.88, p < .001$). This same gender difference was found in Russia ($t = -3.27, p < .001$). However, in Japan, the men were more manic than the women ($t = -2.68, p < .01$).

Romantic attitudes

Although a majority of subjects in each of the three societies replied that love should be a basis of marriage (i.e., they would not marry someone they did not love), the proportion of subjects who said they would insist on love in a marriage partner was significantly lower in Russia than in the United States or in Japan. (A follow-up analysis indicated that similar percentages were found in the subsample that excluded married respondents.) In the total cross-national sample, no gender difference was found in importance attributed to love as a basis for marriage. Analyses conducted within each country, however, indicated that in Russia there was a tendency for women to be more willing than men to marry without love ($\chi^2 = 4.48, p < .05$). (See the percentages reported in Table 3.)

Although many Russian subjects (especially women) said they would be willing to marry without love, the Russian sample was as romantic as the American sample on the Romantic Beliefs Scale. Furthermore, the U.S. and Russian samples scored significantly higher on romantic beliefs than did the Japanese sample. However, no gender difference was found on the romanticism scale in the total sample. Furthermore, the gender-by-culture interaction was not significant, which, given the power of our analyses, means that the gender similarity on romantic beliefs was about the same in all three countries.

Predictors of falling in love

Cross-cultural differences were found in how important 9 of the 11 predictors were judged to be in the subject's last falling-in-love experience. The U.S. sample rated physical appearance, similarity, family and friend approval, personality, affection from other, something special, and mystery as more important antecedents of falling in love than both other samples; social standing was rated as more important by the U.S. sample than the Russian sample; and isolation was rated as more important by the U.S. sample than the Japanese sample. A few further significant differences were found between the Russian and Japanese samples. The Russian sample rated similarity and personality as less important than the Japanese sample and isolation as more important than the Japanese sample. (See the means for each of the countries presented in Table 2.)

Several gender differences were also found, many in the direction that would be predicted from previous literature. In the total sample, men rated physical appearance ($M = 4.65$ vs. 4.24) and readiness ($M = 3.68$ vs. 3.54) as more important than did women. Women rated personality ($M = 4.93$ vs. 4.49), social standing ($M = 3.18$ vs. 2.86), and reciprocal liking ($M = 4.64$ vs. 4.31) as more important than did men. (The gender main effect for readiness is due primarily to a gender difference found in Russia, as discussed below.)

There were also three significant gender-by-culture interactions for the predictors of falling in love. To interpret these interactions, we conducted follow-up t tests to compare men and women within each of the societies. One significant interaction found was for physical appearance of the partner. In all three societies, men rated physical appearance as a more important predictor of falling in love than did women, but the difference was greater in Russia ($t = 6.73, p < .001$) and in the United States ($t = 5.32, p < .001$) than in Japan ($t = 2.14, p < .05$). The second interaction was for

readiness. No gender difference in readiness was found in the United States ($t = -.32, n.s.$) or in Japan ($t = .61, n.s.$), but in Russia men rated readiness as more important than did women ($t = 4.84, p < .001$). Finally, there was a significant gender-by-culture interaction for mystery. In the United States, mystery was more important to women than to men ($t = -3.28, p = .001$); in Russia, mystery was more important to men than to women ($t = 2.80, p < .01$), and in Japan, no significant gender difference was found ($t = 1.49, n.s.$).

Although the above results show that the U.S. sample rated many of the reasons for falling in love as more important than the Russian and Japanese samples, it is also important to compare the relative importance of the 11 predictors of love. We first do this by examining the rank ordering of the traits (based on the mean ratings). These rank orderings are presented in Table 2 for the three cultures. Generally rated high in all three societies were personality, reciprocal liking (affection from other), and physical appearance. Rated as relatively unimportant in all three societies were social standing and approval from family and friends.

Second, we conducted what has been called an ipsative analysis (see Bartholo-

mew & Horowitz, 1991, for an example of its use). We calculated a score for each respondent for each predictor that was the deviation from the mean of the subject's responses to all 11 predictors of love. A positive score indicates that the predictor was important relative to the other predictors, and a negative score indicates that the predictor was unimportant relative to the other predictors.

Many cultural differences were found in the *relative* importance of the precursors to falling in love. Table 5 presents the ipsative scores for each country (for men and women combined). The U.S. sample rated physical appearance, similarity, and personality as relatively more important than the Russian sample. The Russian sample rated familiarity and readiness as relatively more important than the U.S. sample and isolation as relatively more important than both other samples. The Japanese sample rated personality and similarity as relatively more important than the Russian sample and social standing as relatively more important than both other samples.

Many gender differences were found as well, and most were identical to those reported earlier. Table 6 presents the ipsative scores for males versus females (combined

Table 5. *Effect of culture on predictors of falling in love: Results of ipsative analyses*

	Japanese Sample	Russian Sample	U.S. Sample	F value for Culture
Personality	.95 _a	.42 _b	1.05 _a	47.14**
Reciprocal liking	.65	.59	.68	.77
Physical appearance	.43	.38 _b	.63 _a	16.86**
Familiarity	.19	.37 _b	.00 _a	14.27**
Something specific	.08	.25	.18	1.24
Similarity	-.08 _a	-.49 _b	.03 _a	28.99**
Readiness	-.18	.01 _b	-.40 _a	13.22**
Isolation	-.46 _a	.14 _b	-.21 _a	18.10**
Mystery	-.47	-.16	-.33	4.69*
Social standing	-.52 _b	-.87 _a	-.88 _a	8.96**
Family and friend approval	-.59	-.64	-.74	3.09

Note: The ipsative scores are deviations from the mean of responses to all 11 predictors. A positive score means greater importance relative to the other predictors and a negative score indicates less relative importance. The *F* value is the main effect of culture. The subscripts show which cultures have significantly different ($p \leq .01$) scores within a row, based on post-hoc Scheffe tests.

Table 6. Effect of gender on predictors of falling in love: Results of ipsative analyses

	Males	Females	F value for Gender
Personality	.70	1.02	27.31**
Reciprocal liking	.54	.73	15.54**
Physical appearance	.86	.32	65.31**
Familiarity	.06	.15	2.36
Something specific	.21	.17	1.50
Similarity	-.07	-.14	2.28
Readiness	-.13	-.38	9.59*
Isolation	-.17	-.15	.38
Mystery	-.29	-.33	3.07
Social standing	-.94	-.75	17.44**
Family and friend approval	-.77	-.65	1.13

Note: The ipsative scores are deviations from the mean of responses to all 11 predictors. A positive score means greater importance relative to the other predictors, and a negative score indicates less relative importance. The *F* value is the main effect of gender.

across countries). Men attributed greater relative importance to physical attractiveness and readiness, and women attributed greater relative importance to personality, social standing, and reciprocal liking (all significant at $p < .01$). Finally, a significant gender-by-culture interaction was found for reciprocal liking ($F = 4.98, p < .01$) and mystery ($F = 4.78, p < .01$). In Russia, women rated reciprocal liking as relatively more important than did men ($t = -4.20, p < .001$), but the difference was not significantly different in the other two countries. Furthermore, mystery was judged to be relatively more important to Russian men than to Russian women ($t = 2.60, p < .01$), whereas no gender differences were found in the other two countries.

Discussion

This research was an exploratory analysis of cultural and gender factors in understanding attitudes and experiences related to love. Because almost no prior research using measures of love familiar to close-relationship researchers has been conducted with non-Western samples, this study makes a significant contribution to the love literature. Below, we discuss the major culture and gender effects found in this study.

Culture and love

Overall, the young adults from the three countries were similar in many love attitudes and experiences. Subjects from three cultures were similar in the following ways: Most had been in love at least once; erotic love was the most common love style endorsed; a majority believed that love should be the basis for marriage; most were at least somewhat romantic; and personality and physical appearance (desirable characteristics of the other) and reciprocal liking were the most important factors leading to one's last falling-in-love experience. These results are consistent with findings from previous studies conducted with North American samples (e.g., Aron et al., 1989; Hendrick & Hendrick, 1986; Simpson et al., 1986; Sprecher & Metts, 1989).

We did, however, find some significant cross-cultural differences. In summarizing these differences, we will discuss how each cultural group may have a particular love pattern or style, distinct from the styles of the other two cultures.

What is unique about the American style of love? A greater proportion of the Americans than the Japanese or the Russians had a secure attachment style (e.g., Hazan & Shaver, 1987). Whereas studies conducted with children's patterns of attachment have

found their attachment patterns vary cross-culturally, no previous study has found cross-cultural differences in adult attachment types. The secure attachment style of Americans may be traced to nurturing childrearing techniques. American society also promotes intimacy and romantic love in the adolescent culture (e.g., Simon, Eder, & Evans, 1992), giving youth opportunities to form secure intimate relationships. Further differences between Americans and Japanese or Russians may result from this secure attachment type. Americans, for example, scored higher than the other two samples on erotic love (passionate love). Hendrick and Hendrick (1989) found that scores on the erotic subscale are positively correlated with the secure attachment style. And consistent with the high scores on the Eros love style, U.S. subjects saw physical appearance as especially salient when falling in love. The strong endorsement of the Storge love style by Americans is consistent with other research that suggests that there is a potent emphasis on friendship in the love relationships of young adults in American culture (Hendrick & Hendrick, 1993). Also consistent with this research is the finding that similarity was a more salient feature of falling in love for the U.S. sample than for the others. In general, the American sample rated many of the precursors to falling in love as more important than did the other two samples. The particular factors listed may actually be more important to Americans (whereas other unmeasured factors might be more important in the other two cultures), or Americans may have just been using the response scales in different ways.

Is there anything about the Russian style of love that makes it unique from the styles of one or both other countries? More Russian subjects than American subjects had an avoidant attachment style. Perhaps Russians do not have as much security in their childhood experiences as do Americans, or perhaps they have fewer opportunities to develop secure attachments with intimate partners in teenage years. The high propor-

tion of avoidants may explain why Russians scored relatively high on Ludus. Previous research has shown that an avoidant attachment style is associated with higher scores on Ludus (Hendrick & Hendrick, 1989). Russians were also distinctive in their relatively high agapic scores, which may be explained by the influence in Russia of the European-based love ideology. Russians were also unique among the three cultures in that there was a relatively large number of the young adults who would be willing to marry someone they did not love. This finding applied to Russian men (30% would be willing to marry without love), but it especially applied to Russian women (41% would be willing to marry without love). It may be that the economic conditions in Russia at the time and the policy (under Soviet regime) that marriage is one way to get private housing away from parents resulted in the willingness to enter marriage for reasons other than true love. Although Russians were willing to consider marriage without love, they still endorsed a love ideology. For example, they did not score higher on the Pragma scale than did respondents from the other two countries; they scored similarly to the U.S. respondents on romantic beliefs, and they did not rate social standing as a more important predictor for falling in love than did subjects from the other two countries. The relatively high importance Russians gave to isolation as a predictor of their last falling-in-love experience may also be due to the importance of private space in the Russian society. In the light of the importance of circumstances, it is notable that, among the precursors to falling in love, Russians gave uniquely high relative ratings to familiarity, but uniquely low ratings to personality and similarity.

The final country, Japan, is the most collectivistic of the three societies and possibly less likely to be influenced by the European heritage of romantic love. Does this show up in the data? Indeed, the Japanese sample was less likely to be in love at the present time and more likely to have never been in

love. Interestingly, however, the Japanese who had been in love reported more love experiences than did their counterparts in the other two countries. The Japanese sample also differed from the U.S. sample (and all other samples studied in previous adult attachment research) by the high proportion of subjects who were avoidant in attachment style (therefore, they were similar to the Russian sample in this study). We presented some explanations above for why an avoidant attachment style might be more common than a secure attachment style in some populations—fewer secure or positive experiences in early childhood and a lack of opportunity to develop teenage love. Another explanation for Japan's high proportion of avoidants may lie in the societal emphasis on the group, which may make it more difficult for individuals to feel comfortable getting close to one particular partner.

Another way the Japanese were different is that they were less romantic, as measured on the Romantic Beliefs Scale, than both the Russian and the U.S. samples. This result may be a function of their collectivistic orientation, or it may be due to the lack of influence of the European heritage of romantic love. However, note that the Japanese were still quite romantic and perhaps more romantic than one would expect, given their collectivistic orientation. It has been proposed that love is less likely to be considered as a basis for marriage in a society, such as Japan, that emphasizes collectivism (see Dion & Dion, 1993). We did find that significantly fewer of the Japanese than the Americans believed that love should be a basis for marriage; however, it was still a high proportion (81%) of Japanese who linked love with marriage, and this proportion was higher than it was in Russia. In rating the precursors of falling in love, Japanese students rated social standing as relatively more important than the other two samples (although social standing was relatively unimportant in all three cultures). This slight difference may reflect the

greater cultural emphasis in Japan on achievement and accomplishments.

Although we have discussed how each country was unique in love attitudes and experiences, the differences were less obvious and less predictable than cultural stereotypes might lead us to expect. Japanese, Russian, and American views of, and experiences with, love were quite similar, despite the fact that the three societies probably vary markedly politically, economically, socially, psychologically (e.g., individualism vs. collectivism), and in the images of love displayed by the media.

We note one other way that the three countries seemed to differ, which may explain some of the cross-cultural differences reported above. It appeared that the men and women from the different samples used the response scales in different ways. Americans, who are used to completing questionnaires, may have been more likely to endorse scale extremes. We tried to control for different response scales in some of our analyses. For example, when we looked at the importance of the precursors of love across the three cultures, we considered the *relative* importance of the factors.

Gender and love

We were also interested in gender differences in the love variables, both across the cultures and within each country. Because men and women within each culture were likely to interpret words and phrases in the same way and have similar response tendencies, our gender comparisons may be more valid than our cultural comparisons.

In our total cross-national sample, men and women were more similar than different. For example, of the 11 love variables analyzed in this study, gender differences were found for only 3; and of the 11 precursors of falling in love, men and women differed on 5. Women were more likely than men to be in love now, were less likely to be anxious-ambivalent (but thus more likely to be secure or avoidant), and scored lower on the agapic love style. Women rated per-

sonality, reciprocal liking, and social standing as more important, and readiness and physical appearance as less important as precursors of love. The gender differences found for current love status and precursors for falling in love are consistent with previous research (see Buss, 1989; Feingold, 1990). The gender difference found for Agape, however, is not consistent with the previous studies conducted with North American samples, but is consistent with a few studies conducted in other countries (e.g., Feeney & Noller, 1990; Murstein et al., 1991). The finding that men and women differed on the distribution of attachment types was also not consistent with previous research (Shaver & Hazan, 1993). As we will discuss below, the latter gender differences that were found in the total sample were primarily due to differences specific to the Russian and Japanese samples.

Although gender differences were found when all three samples were combined, the effect of gender on some of the love variables varied across the three cultures. We expected that Japan, with its more traditional gender differentiation, would have the most differences between how men and women viewed and experienced love. We actually found that the Japanese sample had the fewest gender differences (6) and the U.S. sample had the most gender differences (12) on the love variables. However, part of this difference in number of significant gender differences was due to different sample sizes (a larger sample size has more power to detect differences).

Based on the cross-cultural comparisons of the within-country gender differences and similarities, we found some effects for the Japanese or Russian samples that were not found in this U.S. sample *or in any previous studies*. We highlight some of these cross-cultural differences in the effects of gender. Hendrick and Hendrick (1992) reported that the largest gender difference found in previous research for any love style is for Ludus—men score higher on Ludus than do women. We also found this gender difference in our U.S. sample. How-

ever, this gender difference, which was assumed to be almost universal, was not found in Japan and Russia. Indeed, there was not even a trend toward this gender difference. Similarly, another gender difference found in most previous research conducted with the love styles is a higher score for women than for men on Storge. We found this gender difference in the U.S. sample, but it was not found in the Russian and Japanese samples. Finally, we note that a gender similarity found in previous research and in our U.S. sample did not show up in the Japanese and Russian samples. The gender similarity on attachment types found in our U.S. sample was consistent with a great deal of previous research (see Shaver & Hazan, 1993), but was not found in Japan and Russia. In Russia, more men than women rated themselves as secure, whereas in Japan more women than men were secure. These results suggest that gender differences (or similarities) in love may not be as universal as has been thought. Socialization, attachment experiences, and social roles for males and females may vary across cultures.

Limitations of the data

The problematic comparability of meaning across cultural samples is a limitation of any cross-cultural study. In all cross-cultural studies it can be difficult to interpret the meaning of differences found across cultures. This difficulty occurs because one cannot assume that words, and hence questionnaire items and scales, have the same meaning from culture to culture. This effect may be particularly true for the items included to measure love styles and romantic beliefs. Furthermore, the results for the love styles must be especially viewed with caution because we used only a brief version of each subscale. In addition, and as discussed above, it is not clear whether respondents in all three cultures used the rating scales equivalently. A second limitation is that the samples were not representative of the particular country and therefore may differ on

factors other than nationality (culture), which may also be related to scores on the love variables. For example, it could be argued that the Japanese and Russian subjects were more likely to represent the "elite" in their countries than the U.S. subjects because a larger proportion of the U.S. population attends college. Furthermore, it could be argued that the Japanese subjects, most of whom were English-language or American Studies majors, were more familiar with the American culture than were other students in Japan and thus may have adopted American attitudes about love. Hence, larger cross-cultural differences in love attitudes and experiences may have been found if more representative samples had been obtained in Russia and Japan.

Conclusion

Although this study is a start in understanding the cultural diversity that exists in love attitudes and experiences with love, there are several ways that cross-cultural research on love could be improved and extended. First, it is crucial to obtain samples that are representative of the entire population. Although this study goes beyond previous studies that have collected data from only one university in one country (we collected data from eight universities in three countries), we know that these samples may not be representative of university students as a whole and certainly not of the country as a whole. Most likely, we would have secured more traditional

cultural and gender difference patterns if we had surveyed more traditional and representative populations—interviewing respondents who were older, less educated, and from rural areas.

Second, subsequent researchers may also wish to consider sampling more cultures per study. The study by Buss (1989) on mate selection stands as an exemplar for cross-cultural research in the personal relationships area. He obtained data from 10,047 adults in 37 cultures, including 33 countries on six continents and five islands. With more cultures represented, we might be better able to determine how particular underlying cultural dimensions (e.g., individualism vs. collectivism; economic wealth) affect attitudes and experiences with love, as Levine et al. (in press) were able to do with their one variable of love as a basis for marriage.

Finally, cross-cultural research could be broadened in yet another way. Although this study was multicultural from the perspective of data collection, it was monocultural in its conceptualization. That is, the scales and measures were originally developed by American theorists who had dealt almost exclusively with U.S. samples. In the future, collaborative cross-cultural research should be conducted. A team of researchers from different countries should select the topics and devise appropriate measures to test their hypotheses. International organizations and conferences and modern communication (e.g., electronic mail and facsimiles) will make such a procedure increasingly feasible.

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